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Czech Journal of GENETICS AND PLANT BREEDING

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Czech J. Genet. Plant Breed.

Oukropec I.:

Evaluation of the *Prunus* interspecific progenies for resistance to *Plum pox virus*

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Sharka disease caused by the infection with the *Plum pox virus* (PPV) in stone fruit trees is worldwide the most devastating for stone fruit production. Until now, good sources of resistance to PPV within the peach group have not been available. There are no commercial cultivars of peach that are resistant to PPV. Other Prunus species are known to show varying levels of resistance. Interspecific hybrids GF 677 (*Prunus* amygdalus \times P. persica) and Cadaman (*P. davidiana* \times *P. persica*) were revealed to be resistant to PPV. The resistance to a Dideron isolate of the descendants of Cresthaven \times GF 677

and Cresthaven \times Cadaman and their progenitors was evaluated after inoculation by chip-budding in a sealed screenhouse. Results demonstrate a certain level of resistance in both progenies of interspecific hybrids and indicate a potential for PPV resistance transfer to commercial peach cultivars but it will be necessary to perform backcrosses with peach cultivars of agricultural interest in order to return pomological and agronomic traits. For the definitive confirmation of resistance/susceptibility it will be necessary to wait until the adult stage of hybrids.

Keywords:

Prunus amygdalus; Prunus davidiana; Prunus persica; PPV; sharka disease; transmissibility

[fulltext]

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